REMARKS

By this Amendment, claims 1, 4, 5 and 11-14 are amended and claims 2, 3 and 25-29 are canceled. Accordingly, claims 1 and 4-24 are pending in this application. No new matter is presented in this Amendment.

The Office Action objects to claims 11 and 13-15 because of informalities. Applicants amend claim 11 to recite "a WAVE file format, while the computer works in a Windows environment." Applicants amend claims 13 and 14 to correct the misspelling of the word "solid" in the term "external solid state." Applicants amend claim 15 to replace the phrase "a signal digital audio" with the phrase "a single digital audio" and to replace the two occurrences of the phrase "audio date files" with the phrase "audio data files." Withdrawal of the objection is respectfully requested.

The Office Action rejects claim 12 under 35 U.S.C. §102(e) over U.S. Patent No. 5,903,871 to Terui et al. (hereinafter "Terui"). This rejection is respectfully traversed.

Independent claim 12 recites a digital audio recording and reproducing apparatus comprising an internal solid state memory for storing said compressed digital audio data and an external memory connecting terminal for connecting detachably an external solid state memory for storing said compressed digital audio data instead of or together with said internal solid state memory. Terui does not disclose, teach or suggest these features.

Although the Office Action asserts that the third embodiment described by Terui, in Fig. 17 and columns 13-14, discloses a digital audio recording and reproducing apparatus, as recited in claim 12, Applicants respectfully disagree.

The Office Action cites column 3 lines 7-11 asserting that Terui, in a first embodiment, discloses (1) an A/D converter for converting an analog audio signal collected by a microphone into digital data. The Office Action further cites column 13, lines 12-13, of Terui's third embodiment asserting that Terui discloses (2) an internal solid state memory and an external

solid state memory. Applicants respectfully submit that the Office Action has improperly combined the first embodiment and the third embodiment because neither embodiment discloses both features (1) and (2), as recited in claim 12. Applicants respectfully submit that the Office Action has combined the elements of two embodiments having different structure and purpose to reject claim 12. This is improper.

More specifically, the first embodiment of Terui, as disclosed in Fig. 1 and in column 3, describes a voice recording and reproducing apparatus that comprises only an internal memory, and does not disclose an internal solid state memory and an external solid state memory. The third embodiment of Terui, as disclosed in Fig. 7 and in column 13, lines 12-13, describes only a voice reproducing apparatus and does not disclose a digital audio recording and reproducing apparatus having an A/D converter for converting an analog audio signal collected by a microphone into digital data, as recited in claim 12. Neither the first embodiment nor the third embodiment of Terui discloses, teaches or suggests (1) a digital audio recording and reproducing apparatus having an A/D converter for converting an analog audio signal collected by a microphone into digital data and (2) an internal memory and an external memory.

Not only does Terui fail to disclose all features of claim 12, Terui does not suggest combining the structures and features of the first and third embodiments to suggest the piecing together of different embodiments so as to result in the digital audio recording and reproducing apparatus as recited in claim 12.

As a further distinction, Terui fails to disclose, teach or suggest a common operating function as temporarily interrupting and automatically restarting recording operation based upon the presence or absence of an external solid state memory, as recited in claim 12.

Independent claim 12 has been rewritten to recite a digital audio recording and reproducing apparatus comprising a memory detection circuit, for example, a mechanical switch or a photoelectric detecting mechanism as disclosed in page 31, lines 5-8 of the specification,

configured to detect the removal of an external memory, wherein when it is detected that the external solid state memory is removed from an external memory connecting terminal during a recording operation using the external solid state memory, the recording operation is temporarily interrupted, and after detecting that the external solid state memory is reconnected to the external memory connecting terminal, the interrupted recording operation is automatically restarted.

Terui only discloses, in Fig. 12 and col. 9, line 62 - col. 11, line 19, a voice recording and reproducing apparatus whereby after the initialization of the unit is completed the operation of the voice recording and the producing apparatus is stopped until it is determined whether the flash memory card has been installed or not. If the flash memory card has not been installed, the process waits until the memory card has been installed. Further operation of the voice recording and reproducing apparatus is controlled by the status of the pushbuttons. Nowhere does Terui disclose, teach or suggest an operational feature that detects that the external memory has been removed from the apparatus during a recording operation and temporarily interrupts the recording process until the voice recording and reproducing apparatus have detected the reinsertion of the external memory, or more specifically, when the removed external memory has been reinserted. Applicants respectfully submit that although Terui discloses a mechanism for detecting whether the flash memory card has or has not been installed, Terui fails to disclose, teach or suggest the automatic restarting of the recording operation after a temporary interruption, as recited in claim 12.

Accordingly, since Terui does not disclose, teach or suggest each and every feature recited in claim 12, claim 12 is patentable over Terui. Claims 13 and 14 are likewise patentable over Terui at least for their dependence on claim 12, as well as for additional features they recite. Withdrawal of the rejection over Terui is respectfully requested.

The Office Action rejects claims 1-5 and 9 under 35 U.S.C. §103(a) over Terui and IEEE Paper CH2243 entitled "Low Cost Voice Compression For Mobile Digital Radios" by Omura (hereinafter "Omura"). This rejection is respectfully traversed.

Independent claim 1 is amended to incorporate features similar to those of former claims 2 and 3. Specifically, claim 1 has been rewritten to include the features of original claim 3 which recites a digital audio recording and reproducing apparatus comprising an internal solid state memory for storing compressed digital audio data and a detachable external solid state memory wherein the external solid state memory is used instead of or together with the internal solid state memory to store the compressed digital audio data. Applicants respectfully submit that neither Terui nor Omura discloses, teaches or suggests this feature.

The Office Action asserts that Terui discloses, at col. 3 lines 61-63, recording voice files to the detachable flash memory card and files are recorded in the memory incorporated in the voice reproducing apparatus an apparatus, as recited in original claim 3. Applicants respectfully disagree.

The internal solid state memory recited in claim 1 is capable of recording analog data received by a microphone in compressed digital form in a manner similar to the external solid state memory. Terui, on the other hand, discloses at col. 13, lines 27-31, an incorporated memory that functions as a storage medium for storing only a voice file transmitted from the flash memory card through the memory card controller. Thus, Terui, in direct contradiction to claim 1, suggests that the incorporated memory serves only as a buffer memory and cannot function in the absence of the flash memory.

Omura only teaches a new technique for low cost robust voice compression and likewise fails to disclose, teach or suggest the features of claim 1.

Accordingly, since Terui and Omura, even if combined, do not teach or suggest each and every feature recited in claim 1, the rejection of claim 1 under 35 U.S.C. §103(a) is

improper. Applicants respectfully submit, therefore, that claim 1 is patentable over Terui and Omura, either alone or in combination.

Claims 4, 5 and 9 are likewise patentable over Terui and Omura at least based on their dependency on claim 1, as well as for additional features they recite. Withdrawal of the rejection over Terui in view of Omura is respectfully requested.

The Office Action rejects claims 6-8 under 35 U.S.C. §103(a) over Terui in view of Omura and further in view of U.S. Patent No. 6,128,661 to Flannagin et al. ("Flannagin"). This rejection is respectfully traversed.

As discussed above, neither Terui nor Omura teaches all of the features recited in claim 1. Flannagin discloses a mobile device that can communicate with a desktop computer via a serial interface and likewise fails to disclose, teach or suggest recording analog data received by a microphone in compressed digital form in either an internal solid state memory or an external solid state memory, as recited in claim 1. Thus, claims 6-8 are patentable over Terui, Omura and Flannagin. Withdrawal of this rejection is respectfully requested.

The Office Action rejects dependent claim 10 under 35 U.S.C. §103(a) over Terui in view of Omura and U.S. Patent No. 6,125,343 to Schuster. This rejection is respectfully traversed.

Schuster discloses a system for identifying the loudest speech signal in a G.723.1 based audio-teleconferencing link. However, similar to the arguments presented above, Schuster fails to disclose, teach or suggest the features of claim 1, from which claim 10 depends. Accordingly, claim 10 is likewise patentable over the combination of Terui, Omura and Schuster based upon its dependency on claim 1 as well as for the additional features it recites. Withdrawal of this rejection is respectfully requested.

The Office Action rejects claim 11 under 35 U.S.C. §103(a) over Terui, Omura, U.S. Patent No. 5,581,703 to Baugher et al. ("Baugher") and U.S. Patent No. 6,009,519 to Jones et al. ("Jones"). This rejection is respectfully traversed.

Baugher only discloses at col. 2, lines 48-60, a method for providing files to a remote node including the steps of determining whether bandwidth is available, reserving bandwidth, and opening the requested file for transmission only if bandwidth is reserved. Jones, on the other hand, discloses at col. 2, lines 9-13, a software system that enables effective usage of audio devices in connection with a Windows computer having varying computer soundcards in a Windows environment. Similar to the argument presented above, neither Baugher nor Jones discloses, teaches or suggests recording analog data received by a microphone in compressed digital form in either an internal solid state memory or an external solid state memory, as recited in claim 1 from which claim 11 depends.

Applicants respectfully submit that claim 11 is patentable not only due to the failure of the applied references to disclose, teach or suggest all the recited features of claim 1, from which claim 11 depends, but is also patentable based upon the improper combination of Terui, Omura, Baugher and Jones. Accordingly, withdrawal of this rejection is respectfully requested.

The Office Action rejects claims 13 and 14 variously under 35 U.S.C. §103(a) over Terui, U.S. Patent No. 5,196,947 to Takahashi and U.S. Patent No. 6,538,687 to Saito et al. ("Saito"). This rejection is respectfully traversed.

As explained above, claim 12 is patentable over Terui. Claims 13 and 14 depend from claim 12 and are likewise patentable at least for their dependency, as well as for additional features they recite. Withdrawal of the rejections over Terui, Takahashi and Saito is respectfully requested.

The Office Action rejects claims 15-19 under 35 U.S.C. §103(a) over Terui and U.S. Patent No. 5,751,672 to Yankowski. This rejection is respectfully traversed. Claim 15

recites, *inter alia*, a digital audio recording and reproducing apparatus comprising a plural file continuous repeat mode in which a plurality of digital audio data files stored in the internal solid state memory and/or external solid state memory are successfully reproduced only once and a plural file repeat mode in which a plurality of digital audio data files stored in the internal solid state memory and/or external solid state memory are successively reproduced in a repeated manner.

The Office Action asserts that Terui discloses all features of claim 15 except for deficiencies which the Office Action alleges are remedied by Yankowski. Applicants respectfully disagree.

As explained above, Terui fails to disclose a voice recording and reproducing apparatus comprising both internal memory and external memory as recited in claims 1 and 15. Yankowski only discloses a compact disc changer and likewise fails to disclose, teach or suggest a digital audio recording and reproducing apparatus, as recited in claim 15.

Applicants respectfully submit that claim 15 is patentable due to the failure of Terui and Yankowski to disclose, teach or suggest all the recited features of claim 15.

Claims 16-19 are likewise patentable over Terui and Yankowski at least based on their dependency on claim 15, as well as for additional features they recite. Withdrawal of the rejection over Terui and Yankowski is respectfully requested.

The Office Action rejects dependent claims 20 and 21 under 35 U.S.C. §103(a) over Terui, Yankowski and U.S. Patent No. 6,283,764 to Kajiyama et al. ("Kajiyama"). This rejection is respectfully traversed.

Kajiyama discloses a storage medium playback system and method. Similar to the argument presented above in regards to independent claim 15, Kajiyama does not disclose a voice recording and reproducing apparatus comprising both internal memory and external memory. Therefore, claims 20 and 21 are patentable over the combination of Terui,

Yankowski and Kajiyama at least based upon their dependency on claim 15, as well as for the additional features they recite. Withdrawal of the rejection is respectfully requested.

The Office Action rejects independent claim 22 under 35 U.S.C. §103(a) over Terui in view of U.S. Patent No. 5,566,339 to Perholtz et al. ("Perholtz"). This rejection is respectfully traversed.

The Office Action asserts that Terui discloses all features of claim 22 except for an alarm data file for storing in the fixed information storage data area. The Office Action alleges that Perholtz remedies the deficiencies of Terui. Applicants respectfully disagree.

Claim 22 recites a digital audio data file stored in an alarm data storage area "that cannot be erased at least by a normal operation for erasing one or more digital audio data files stored in the normal data storage area." Applicants respectfully submit that neither Terui nor Perholtz discloses this feature.

Perholtz only discloses, at column 5, line 2, the capturing of alert messages that will be replayed by the user and the Office Action alleges that it would be obvious of one of ordinary skill in the art to store the alert messages in the memory of Terui. Applicants respectfully submit that neither reference discloses, teaches or suggests storing an alarm message in an alarm data storing area in such a manner that the alarm message could not be erased by an ordinary erase operation, as recited in claim 22. Neither Terui nor Perholtz discloses this feature. Therefore, having not disclosed all the features recited in claim 22, the rejection of claim 22 under 35 U.S.C. §103(a) over Terui in view of Perholtz is improper.

Claims 23 and 24 depend from claim 22 and are likewise patentable at least based upon their dependency as well as for the additional features they recite. Withdrawal of the rejection is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1 and 4-24 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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